

A world shortage of top class managers to run increasingly complex projects and programmes, and the requirement by project-led companies for consistent standards across worldwide activities, is fuelling a global trend for organisations to develop talent through their own internal academies.

Rick Waghorn reports.

DISTANCE LEARNING



THE PROJECT academy concept was outlined to delegates at the last APM conference by Paul Hodgkins of Siemens (recently accredited by APM) who described his organisation's academy as not so much a physical entity but a framework of ideas and processes. He said it was being used to promote a consistent and common approach to project and programme management capability throughout the engineering giant's operations in more than 190 countries.

This growing interest in project academies within the project management community is described by Tony Teague, managing director of project and programme management improvement organisation Human Systems Europe and a leading figure in the assessment and benchmarking of academies.

"Academies certainly appear to be the trend of the moment in project management," said Teague. "Major organisations which have project management as a core component are realising that project academies can have real and lasting benefits if they are run correctly."

"We are finding the interest is phenomenal. It arises out of the increasing complexity of projects that people have to run versus the decreasing supply of really skilled people who have the ability to manage such projects."

Project academies, with a few exceptions, are still in their infancy and evolving in their breadth, scope and effectiveness. Teague and Human Systems International chairman Dr Terry Cooke-Davies facilitated the first invitation-only project academy workshop hosted by Shell at its technology centre in Rijswijk near The Hague last autumn.

Attended by learning and development leaders from 22 major organisations who view project management as a core activity, the two-day workshop shared academy best practices, development and new ideas.

Since then a working group involving representatives from major organisations like Shell, NASA, Rolls Royce, Siemens, Fujitsu and SITA among others has been set up to develop a clear understanding of 'what good looks like' and to develop a proprietary tool for the specialised benchmarking of academies.

The NASA Academy of Program/Project and Engineering Leadership (APPEL)

Ed Hoffman, director of the NASA Academy of Program/Project and Engineering Leadership (APPEL), delivered the keynote address at the workshop. APPEL is a learning centre which, under the

inspirational guidance of Hoffman and helped by the strong backing of the NASA leadership, has developed into what is generally recognised as not only the most mature but the most comprehensive and innovative project academy in the world.

It makes an interesting study for any organisation thinking of setting up an internal academy or enhancing one currently running. Indeed it is hard to find a more extreme place to run a project than at NASA. Launching shuttles, satellites, and people into space is a high-profile, high-risk job. And, yes, it is rocket science.

APPEL's roots go back to the late 80s with the most devastating failure in NASA's history – the space shuttle Challenger disaster in 1986 and the need to address the subsequent criticisms of the organisation's culture and decision-making processes made in the presidential commission report into the incident.

"At the time there was a lot of internal and external focus in terms of what we were doing to prepare competent and capable project practitioners and an initiative was launched to improve our learning and development programme and that initiative since evolved in 1997 as an academy," recalled Hoffman.

The APPEL focus has three main business areas: A training curriculum, performance enhancement and knowledge sharing. This is based on a philosophy that emphasises a commitment to learning and development at the individual, team and community level.

"As people start out at NASA, they clearly have to acquire the knowledge, skills, and abilities necessary to do the job," said Hoffman. "We know from internal qualitative research conducted over the past year that our practitioners say they learn 90 per cent or more of what they need to know on the job. Professional development for individuals includes on-the-job training, a core training curriculum as well as in-depth offerings on specific topics, rotational job assignments, and mentoring."

Hoffman said APPEL responds to internal and external drivers by regularly re-assessing the competencies required for project managers and practitioners. From that competency model, based on NASA standards and policies, a three-tier – Introductory, Mid-career and Senior – development framework is put together

It is administered by Hoffman and a small team and is heavily outsourced, being supported by about 200 industry and university partners working on either a contractual or occasional basis.

Hoffman said the curriculum was there to make sure individuals have the knowledge and capability to increase their likelihood of success, but NASA had found that individual improvement was not enough in itself.

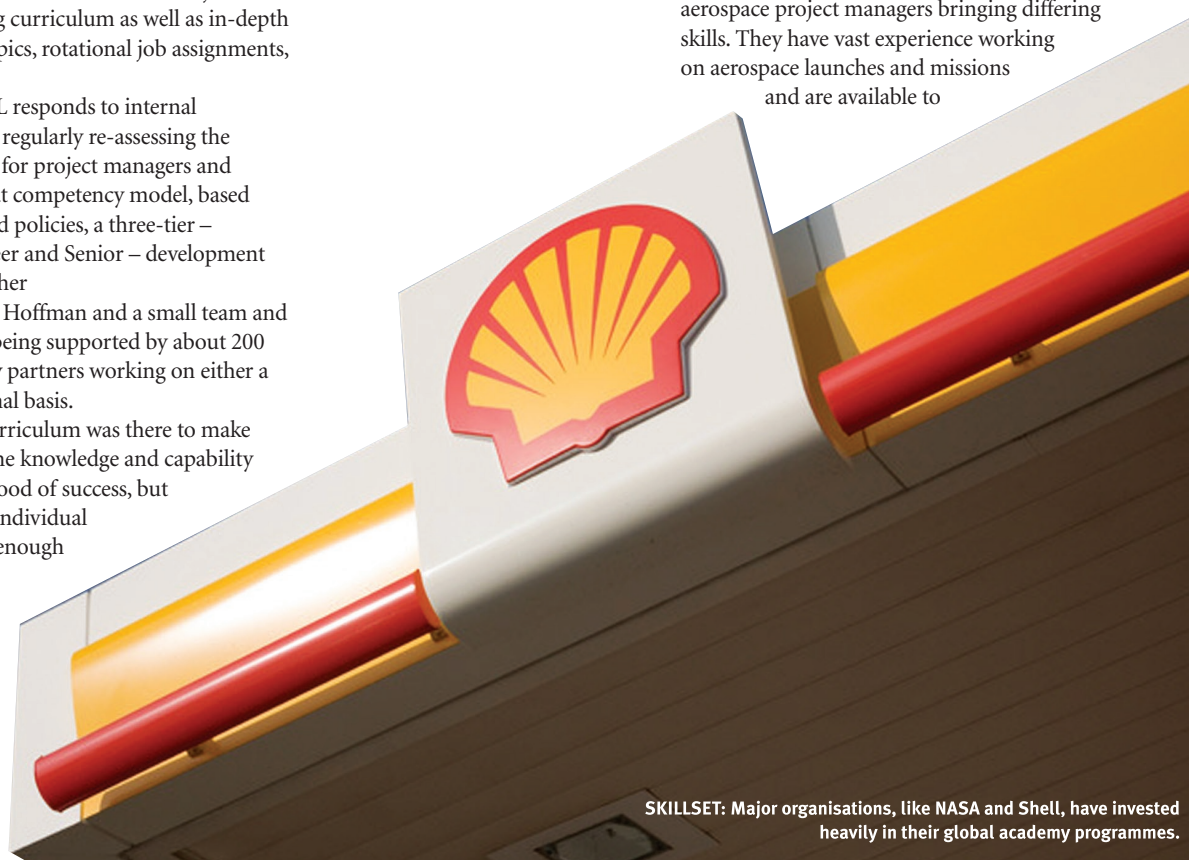
"A lot of people look on project management as tools, techniques and controls. But we believe the most important aspect is the people and



leadership necessary for the success of these complex missions. So we have built a heavy emphasis on leadership and team building by introducing our second business line, what we call performance enhancement, to provide in situ support for our project and engineering teams around the country," he explained.

"It was introduced in the late 90s after a series of Mars mission failures and our assessment at the time indicated that when a team were having difficulties there was not the support going directly to the team to help them," he said.

Now this performance enhancement programme is supported by APPEL's largest area of funding. It has a core of up to 50 people, typically retired NASA or aerospace project managers bringing differing skills. They have vast experience working on aerospace launches and missions and are available to



SKILLSET: Major organisations, like NASA and Shell, have invested heavily in their global academy programmes.

be brought in as required under part-time contracts to train, coach and mentor project teams when in mission.

APPEL web-based tools first measure behavioural effectiveness for teams and leaders as well as team knowledge in the 120 missions the academy is likely to be supporting at any given time. Ongoing assessments are carried out about every six months.

Following assessment, intervention is geared to meeting the team needs whether it is maintaining the effectiveness of high performing teams or deciding what actions are required to support lesser performing teams. Actions can include workshops, working with a coach and consultation. Project cycle life support is provided for any competency including team building, planning and scheduling, programme control and analysis, systems integration, risk management and software management.

Knowledge sharing is the third tier of learning within APPEL. "In a project organisation the focus on mission can lead to a dangerous lack of a community culture and taking the time to share lessons and exchange knowledge," explained Hoffman.

Dialogue through narratives and informal storytelling is therefore encouraged by the agency to give practitioners a sense of the context in which experience has been acquired, obstacles overcome and successes achieved.

Managers, scientists and engineers provide examples and lessons learned from their experiences through a series of APPEL events and outlets including forums, conferences, publications and multimedia. It has helped build a better community spirit, stronger mutual support and a culture of excellence within the organisation.

The Shell Project Academy (SPA)

Just as problems with the Challenger and Mars missions provided the impetus for NASA to begin and then expand its project academy programme, so inconsistent delivery of some of Shell's major exploration and production projects prompted the company to promote an internal competence development programme.

"Until the Shell Project Academy (SPA) was established in 2005, project managers were selected from various disciplines and developed their skills on the job with only limited formal learning to achieve consistency across the company's portfolio, hence the need for a comprehensive company-wide programme," said the academy's head, Hans Wierda.

"Our studies coincided with a general development within the oil industry to spend more time educating project managers because projects are becoming increasingly complex and challenging as the need grows to explore and produce hydrocarbons in ever-more remote and/or hostile climatic environments.

"These projects demand the use of new technologies and the skills to overcome environmental and social challenges as well as meet the complexities of working with multiple development partners (such as local and international partners and national oil companies)."

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coincided with an enormous market demand for highly competent project managers. "Shell believes the opportunities offered through the project academy will also help us recruit and retain the leading project managers in the industry and allow us to continue delivering complex energy projects on schedule and within budget," said Wierda.

"We called the initiative an academy because it not only creates learning events but provides a complete programme helping the development of long term competence growth throughout an individual's career development. It also aims to develop the competence within the Shell project management community as a whole by sharing best practices and experiences."

Wierda explained that the SPA programmes are designed to provide competence development specifically to people who are in charge of multi-disciplinary teams and have a leadership co-ordination role within those teams but also offers training to all those contributing to projects. Individual technical training is covered elsewhere within the organisation through Shell's comprehensive and highly regarded technical learning and development programmes.

In many ways the SPA closely follows similar principles to NASA's APPEL in its broad approach. That is not surprising as many dimensions of project complexity are equally valid for the oil company.

Four university learning partners – the Cranfield School of Management in the UK, Delft University of Technology in Holland, the University of Texas at Austin/McCombs School of Business in the US and the Queensland University of Technology in Australia – were appointed in 2006 to develop the curriculum and complement Shell's own management expertise with leading edge external practices and research.

Since then more than 2,000 project leaders have taken part in courses and events. Besides formal learning and accreditation, the SPA provides a wide range of opportunities and support including mentoring and ways of sharing knowledge, and it is now recognised as a world leading project academy in its own right.



HANDS ON: Structured learning programmes have produced a more consistent approach to project delivery.